

ABSTRACT

There is formed a laminated resist which exhibits sufficient reflection reducing effect in a photolithography process using light of vacuum ultraviolet region and also has sufficient developing characteristics in a developing process. The method of forming the laminated photoresist comprises (I) a step for forming the photoresist layer (L1) on a substrate and (II) a step for forming the antireflection layer (L2) on the photoresist layer (L1) by applying the coating composition containing the fluorine-containing polymer (A) having hydrophilic group Y. The fluorine-containing polymer (A) contains a structural unit derived from a fluorine-containing ethylenic monomer having hydrophilic group Y and is characterized in that (i) the hydrophilic group Y contains an acidic OH group having a pKa value of not more than 11, (ii) a fluorine content is not less than 50 % by mass, and (iii) the number of moles of the hydrophilic group Y in 100 g of the fluorine-containing polymer (A) is not less than 0.14.